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CLAIMS

What is claimed is:

- 1 1. An apparatus comprising:
- a buffer having at least one trigger, coupled with one of a bus and a
- 3 component connected with said bus, to observe and echo at least one of
- 4 signals transmitted on said bus, signals transmitted into said component and
- 5 signals transmitted out of said component;
- 6 wherein said bus is one of a memory bus, a data bus, an address bus,
- 7 and a control bus.
- 1 2. The apparatus as in claim 1, further comprising an observability port
- 2 coupled with said buffer to receive said echoed signals, an observability bus
- 3 connected with said observability port, and a diagnostic device being at least
- 4 one of a logic analyzer and a bus analyzer connected with said observability
 - bus and performing at least one of detecting said echoed signals, accessing
- 6 said echoed signals and reading said echoed signals.
- 1 3. The apparatus as in claim 2, wherein said observability port is a logic
- 2 observability port.
- 1 4. The apparatus as in claim 1, wherein said bus is one of a simultaneous
- bi-directional bus (SBD) having ternary logic levels, a single ended bus, a
- 3 differential bus, an optically coupled bus, a chipset bus, a frontside bus, an
- 4 input/output (I/O) bus, a peripheral component interconnect (PCI) bus, and an
- 5 industry standard architecture (ISA) expansion bus.
- 1 5. The apparatus as in claim 1, wherein said buffer configured to observe
- 2 and echo signals transmitted by wireless communication.
- 1 6. A method comprising:
- observing and echoing at least one of signals transmitted on a bus,
- 3 signals transmitted into a component and signals transmitted out of said
- 4 component;

- wherein said bus is one of a memory bus, a data bus, an address bus, and a control bus.
- 1 7. The method as in claim 6, further comprising:
- 2 receiving said echoed signals; and
- performing at least one of detecting said echoed signals, accessing said echoed signals and reading said echoed signals.
- 1 8. The method as in claim 6, wherein said bus is one of a simultaneous bi-
- 2 directional bus (SBD) having ternary logic levels, a single ended bus, a
- differential bus, an optically coupled bus, a chipset bus, a frontside bus, an
- 4 input/output (I/O) bus, a peripheral component interconnect (PCI) bus, and an
- 5 industry standard architecture (ISA) expansion bus.
- 1 9. The method as in claim 6, wherein said signals are transmitted by
- 2 wireless communication.
- 1 10. A system comprising:
- 2 a memory;
- an input/output (I/O) port; and
- 4 a microprocessor;
- 5 wherein said memory, said I/O port, and said microprocessor are
- 6 connected by a data bus, an address bus and a control bus; and
- 7 wherein said microprocessor includes means for observing and echoing
- 8 at least one of signals transmitted on a bus, signals transmitted into a
- 9 component and signals transmitted out of said component.
- 1 11. The system as in claim 10, further comprising means for receiving said
- 2 echoed signals, and means for performing at least one of detecting said
- 3 echoed signals, accessing said echoed signals and reading said echoed
- 4 signals.

- 1 12. The system as in claim 10, wherein said bus is one of a simultaneous bi-
- 2 directional bus (SBD) having ternary logic levels, a single ended bus, a
- differential bus, an optically coupled bus, a chipset bus, a frontside bus, an I/O
- 4 bus, a peripheral component interconnect (PCI) bus, and an industry standard
- 5 architecture (ISA) expansion bus.
- 1 13. The system as in claim 10, wherein said signals are transmitted by
- 2 wireless communication.
- 1 14. A system comprising:
- 2 a memory;
- an input/output (I/O) port; and
- 4 a microprocessor;
- wherein said memory, said I/O port, and said microprocessor are
- 6 connected by a data bus, an address bus and a control bus; and
- 7 wherein said microprocessor includes a buffer having at least one
- 8 trigger, coupled with one of said busses and a component connected with said
- busses, to observe and echo at least one of signals transmitted on said bus,
- 10 signals transmitted into said component and signals transmitted out of said
- 11 component.
- 1 15. The system as in claim 14, further comprising an observability port
- 2 coupled with said buffer to receive said echoed signals, an observability bus
- 3 connected with said observability port, and a diagnostic device being at least
- 4 one of a logic analyzer and a bus analyzer connected with said observability
- 5 bus and performing at least one of detecting said echoed signals, accessing
- 6 said echoed signals and reading said echoed signals.
- 1 16. The system as in claim 15, wherein said observability port is a logic
- 2 observability port.
- 1 17. The system as in claim 14, wherein said bus is one of a simultaneous bi-
- 2 directional bus (SBD) having ternary logic levels, a single ended bus, a

- 3 differential bus, an optically coupled bus, a chipset bus, a frontside bus, an I/O
- 4 bus, a peripheral component interconnect (PCI) bus, and an industry standard
- 5 architecture (ISA) expansion bus.
- 1 18. The system as in claim 14, wherein said buffer is configured to observe
- 2 and echo signals transmitted by wireless communication.